

What is claimed is:

1. A cordless screwdriver having a motor housing (12) that is composed of casing halves (16, 17), is equipped with a rechargeable battery (40), and is
5 adjoined by a transmission housing (18) containing a transmission (72) equipped with an output spindle (20),
wherein the casing halves (16, 17) of the motor housing (12), solely with their c-shaped ends adjoining the transmission housing (18), in particular with an
10 annular counterpart bead (53) embossed on the inside and an annular housing groove (54), embrace in clamp-like fashion and extend through axial, tab-like extensions (60), in particular ones embodied in the form of axial teeth provided with annular counterpart profiles, of the transmission housing (18), and in particular extend with protrusions, preferably pedestals (50), between the extensions (60) and hold the transmission housing (18) in a centered, rotationally
15 fixed manner without play.
2. The cordless screwdriver as recited in claim 1,
wherein groove/spring connections (60, 53, 54, 55, 56, 60, 97) that engage each other radially are situated between the cylindrical, one-piece transmission
20 housing (18) and the casing halves (16, 17) of the motor housing (12), with a flush transition between the outer contours of these housings at a circular butt joint.
3. The cordless screwdriver as recited in claim 1,
25 wherein the groove/spring connections constitute radial plug-type connections between the casing halves (16, 17) in such a way that the transmission housing (18), when it is plugged radially into one of the casing halves (16, 17) that is oriented with its opening facing upward, is attached to it in a manner that prevents it from falling out.
- 30 4. The cordless screwdriver as recited in claim 1,

wherein the motor shaft end (47) associated with the transmission (72) has at least one flattened region, preferably two, and an engagement opening (66) of the transmission input shaft has a corresponding negative shape.

- 5 5. The cordless screwdriver as recited in claim 1,
wherein in the transmission (72) in the form of a sun-and-planet gear is inserted into a hollow, cylindrical transmission housing (18) and a spring washer (62) or an axial securing plate is able to secure it in position therein; the transmission housing (18) is also provided with an internal gearing and serves as a sun gear.
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6. The cordless screwdriver as recited in claim 1,
wherein the spring washer (62) is supported against the internal gearing of the transmission housing (18).
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7. The cordless screwdriver as recited in claim 1,
wherein the spring washer (62) has two wings (64) protruding from its circumference; it is possible to secure these wings against axial loosening by engaging them in bayonet locking fashion in two corresponding axial recesses of the transmission housing (18) and/or by pressing them and/or rotating them into
- 20 these recesses.
8. The cordless screwdriver as recited in claim 1,
wherein the sun-and-planet gear (72) is provided with an autolock system so that the rotation of the output spindle (20) locks when a torque is exerted on it from
- 25 the outside.
9. The cordless screwdriver as recited in claim 1,
wherein its transmission housing (18), on the motor side, in particular at the top and bottom, has tab-like axial extensions (60) with an annular groove (54) and
- 30 an annular bead (53).

10. The cordless screwdriver according to the preamble to claim 1,
wherein the casing halves of the motor housing (12) engage in this annular
groove and annular bead with a corresponding counterpart profile, thus
permitting the casing halves to be axially and radially coupled to each other
5 without play in a non-detachable manner.
11. The cordless screwdriver as recited in claim 1,
wherein axial counterpart extensions of the casing halves protrude into the tooth
gap-like intermediate spaces between the axial extensions and serve to prevent
10 the transmission housing from rotating in relation to the motor housing.
12. The cordless screwdriver as recited in claim 1,
wherein the axial extensions (60) of the transmission housing (18) and the
protrusions (50, 51) of the motor housing (12) are situated asymmetrically in
15 order to prevent incorrect assembly.
13. The cordless screwdriver as recited in claim 1,
wherein the motor and/or the transmission housing and/or the rechargeable
battery and/or the circuit board inside the casing halves are integrated into the
20 reinforcing structure of the motor housing (12) and/or the handle (14) so that
they increase its inherent stability with a minimum of material consumption.
14. The cordless screwdriver as recited in claim 1,
wherein on each casing half (16, 17), the handle (14) has a rubber covering that
25 covers a large area, bulges outward, and is provided with a nubbed structure.